REMARKS

Review and reconsideration on the merits are requested.

Turning first to claim rejections, 35 U.S.C. § 112, claims 9 and 10 are rejected as being indefinite, the Examiner first referring to "treating a zirconium hydrocarbon" [zirconium hydroxide] in claim 9, line 2, as being indefinite since Applicants have not specifically indicated that the catalyst comprises zirconium hydroxide, Claim 9 is so amended.

Next, the Examiner finds "zirconium hydroxide" in claim 9, lines 5, 9 and 12 to render the claim indefinite because it is unclear if this is the same as the "zirconium hydroxide" in line 2 of claim 9. Claim 9 is appropriately amended.

Finally, with respect to there being insufficient antecedent basis for "the treated material" in lines 3 and 6 of claim 9, claim 9 is appropriately amended.

Withdrawal is requested.

At the time of rejection, claims 1-5 and 7-10 were pending. Applicants cancel claims 1-5 and traverse the rejection of claims 7-10.

It is important to appreciate that in the catalyst of the present invention, palladium and platinum are not simply mixed, rather, they are mixed in a specific ratio, and it is this specific ratio which enables one to simultaneously attain the desired hydrodesulfurization and isomerization in accordance with the present invention.

The preferable range or ratio between palladium and platinum (Pt/Pd atomic ratio) and the influence thereof in the case where the ratio is outside the range of the claims is discussed at page 8, lines 9-20 of the present specification.

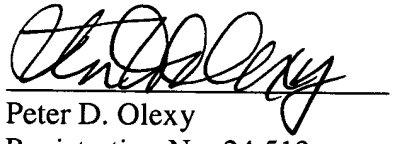
Further, the degree of C_5 isomerization (%) of each catalyst is given in Tables 5 and 6 of the present specification. As should be quite clear from Table 6 Catalyst I ($Pt/Pd/SO_4/ZrO_2$) in which palladium and platinum are mixed in a specific ratio has higher degree of C_5 isomerization than Catalyst A ($Pd/SO_4/ZrO_2$) and Catalyst N ($Pt/SO_4/ZrO_2$).

The prior art discloses a $Pt/SO_4/ZrO_2$ catalyst and a $Pd/SO_4/ZrO_2$ catalyst. However, the catalyst of the present invention ($Pt/Pd/SO_4/ZrO_2$) is not taught or suggested in any reference.

As a consequence, Applicants respectfully submit that, in view of the prior art, one skilled in the art would not be led to mix palladium and platinum in a specific ratio as now claimed in claim 7 and expect to achieve the results of the present application with the catalyst of the present invention, namely, a catalyst which has both an isomerization function and a hydrodesulfurization function.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Peter D. Olexy
Registration No. 24,513

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373
PATENT TRADEMARK OFFICE

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 1-5 are canceled.

The claims are amended as follows:

7. (Amended) [The catalyst according to claim 1] A catalyst composition for the hydrodesulfurization and isomerization of a light hydrocarbon oil, wherein the catalyst comprises [the] a support comprising zirconium oxide or a zirconium hydroxide; from 1 to 3 wt% sulfuric acid radicals in terms of a sulfur amount based on the total weight of the catalyst composition; and from 0.05 to 10 wt% palladium and from 0.05 to 10 wt% platinum, based on the total weight of the catalyst composition, wherein the catalyst has a specific surface area of from 50 to 150 m^2/g after stabilization by burning at a temperature of from 550 to 800°C, wherein the hydrodesulfurization and isomerization are simultaneously achieved with the catalyst composition.

9. (Amended) A process for producing the catalyst composition of claim 7 wherein the support comprises the zirconium hydroxide, comprising:

(1) treating [a] the zirconium hydroxide of claim 7 with a substance giving sulfuric acid radicals; impregnating the resultant [treated material] zirconium hydroxide which has been treated with the substance giving sulfuric acid radicals with a palladium compound and a platinum compound and burning the impregnated material at a temperature of from 550 to

800°C; or

(2) treating [a] the zirconium hydroxide of claim 7 with a substance giving sulfuric acid radicals, burning the [treated material] zirconium hydroxide which has been treated with the substance giving sulfuric acid radicals at a temperature of from 550 to 800°C; impregnating the resultant burned material with a palladium compound and a platinum compound and burning the impregnated material at a temperature of from 300 to 700°C; or

(3) kneading [a] the zirconium hydroxide of claim 7, a substance giving sulfuric acid radicals, and a palladium compound and a platinum compound and burning the mixture at a temperature of from 550 to 800^{0}C; or

(4) kneading [a] the zirconium hydroxide of claim 7 and a substance giving sulfuric acid radicals; burning the mixture at a temperature of from 550 to 800^{0}C; impregnating the resultant burned material with a palladium compound and a platinum compound and burning the impregnated material at a temperature of from 300 to 700^{0}C.